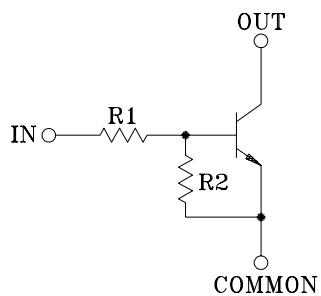


**SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION**

**FEATURES**

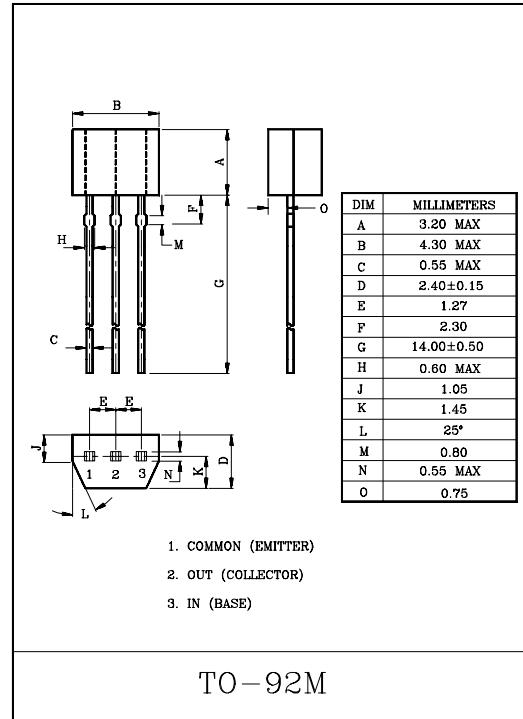
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

**EQUIVALENT CIRCUIT**



**BIAS RESISTOR VALUES**

TYPE NO.	R1(kΩ)	R2(kΩ)
KRC116M	1	10
KRC117M	2.2	2.2
KRC118M	2.2	10
KRC119M	4.7	10
KRC120M	10	4.7
KRC121M	47	10
KRC122M	100	100



**MAXIMUM RATING (T<sub>a</sub>=25°C)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	V <sub>O</sub>	50	V
Input Voltage	V <sub>I</sub>	10, -5	V
		12, -10	
		12, -5	
		20, -7	
		30, -10	
		40, -15	
		40, -10	
Output Current	I <sub>O</sub>	100	mA
Power Dissipation	P <sub>D</sub>	400	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C

# KRC116M ~ KRC122M

ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC116M ~ 122M	$I_{O(OFF)}$	$V_o=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC116M	$G_I$	$V_o=5V, I_o=5mA$	33	-	-	
	KRC117M		$V_o=5V, I_o=20mA$	20	-	-	
	KRC118M		$V_o=5V, I_o=10mA$	33	-	-	
	KRC119M		$V_o=5V, I_o=10mA$	30	-	-	
	KRC120M		$V_o=5V, I_o=10mA$	24	-	-	
	KRC121M		$V_o=5V, I_o=5mA$	33	-	-	
	KRC122M		$V_o=5V, I_o=5mA$	62	-	-	
Output Voltage	KRC116M	$V_{O(ON)}$	$I_o=10mA, I_l=0.5mA$	-	-	0.3	V
	KRC117M		$I_o=10mA, I_l=0.5mA$	-	0.1	0.3	
	KRC118M		$I_o=10mA, I_l=0.5mA$	-	-	0.3	
	KRC119M		$I_o=10mA, I_l=0.5mA$	-	0.1	0.3	
	KRC120M		$I_o=10mA, I_l=0.5mA$	-	0.1	0.3	
	KRC121M		$I_o=10mA, I_l=0.5mA$	-	0.1	0.3	
	KRC122M		$I_o=5mA, I_l=0.25mA$	-	0.1	0.3	
Input Voltage (ON)	KRC116M	$V_{I(ON)}$	$V_o=0.3V, I_o=20mA$	-	0.98	3	V
	KRC117M		$V_o=0.3V, I_o=20mA$	-	1.83	3	
	KRC118M		$V_o=0.3V, I_o=20mA$	-	1.22	3	
	KRC119M		$V_o=0.3V, I_o=20mA$	-	1.76	2.5	
	KRC120M		$V_o=0.3V, I_o=2mA$	-	2	3	
	KRC121M		$V_o=0.3V, I_o=2mA$	-	3.9	5	
	KRC122M		$V_o=0.3V, I_o=1mA$	-	1.64	3	
Input Voltage (OFF)	KRC116M	$V_{I(OFF)}$	$V_{CC}=5V, I_o=100\mu A$	0.3	0.63	-	V
	KRC117M			0.5	1.15	-	
	KRC118M			0.3	0.67	-	
	KRC119M			0.3	0.82	-	
	KRC120M			0.8	1.68	-	
	KRC121M			1	3.09	-	
	KRC122M			0.5	1.17	-	
Transition Frequency	KRC116M ~ 122M	$f_T^*$	$V_o=10V, I_o=5mA$	-	250	-	MHz
Input Current	KRC116M	$I_I$	$V_I=5V$	-	-	7.2	mA
	KRC117M			-	-	3.8	
	KRC118M			-	-	3.8	
	KRC119M			-	-	1.8	
	KRC120M			-	-	0.88	
	KRC121M			-	-	0.16	
	KRC122M			-	-	0.15	

Note : \*Characteristic of Transistor Only